

## **7.0 ALTERNATIVE SELECTION**

Chapters 3 through 6 provide an objective framework for evaluating the environmental acceptability of various management alternatives. In most cases, these evaluations may result in one or more open-water, confined, or beneficial use alternatives that clearly meet all applicable environmental standards and criteria and are, therefore, environmentally acceptable. This chapter describes the alternative selection process. As shown in Flowchart 3-1, the alternative selection process includes evaluation of socio economic, technical, management, and other environmental considerations, selection of a preferred alternative, and appropriate environmental coordination and documentation.

### **7.1 Evaluation of Socioeconomic, Technical, and Other Applicable Environmental Considerations**

Over 30 major environmental statutes, Executive orders, and government regulations exist that may, on a case-by-case basis, govern the manner in which dredged material is managed and/or disposed. The major statutes are discussed in more detail in Appendix B; however, procedures for meeting the requirements of these statutes are beyond the scope of this document. While the intent of the statutes and this management framework is to afford maximum environmental protection to each specific environmental resource at potential risk, this must be pursued within the broader context of overall environmental protection.

A final decision on the alternative or alternatives selected for a specific navigation project or permit activity often requires weighing and balancing a much broader set of relevant environmental, engineering, and economic factors. An in-depth discussion of these broader decision-making principles is beyond the scope of this document, and the reader is referred to applicable USACE regulations (33 CFR 320-330; 33 CFR 335-338; ER 1105-2-100) for further guidance and information on procedures used by the USACE in its required public interest analysis. However, several of these decision-making concepts and considerations are particularly relevant to this document and to considerations under NEPA, CWA, and MPRSA, and warrant a limited discussion.

#### **7.1.1 Authorized Project Purposes**

Navigation project status (i.e., new work or maintenance) may often influence the range of available management alternatives for dredged material. For projects in the planning stage (either new projects or projects undergoing reformulation studies), USACE policy is to maximize public benefits associated with the project. This is accomplished through the development of a NED plan and is derived through an incremental analysis of appropriate benefits versus costs. A wide range of potential environmental benefits (e.g.,

beneficial use of dredged material, the environmentally preferred alternative(s)) may be pursued in such studies, assuming that they can be incrementally justified, and, in turn, approved and authorized by Congress.

For existing projects requiring periodic maintenance, project benefits/purposes have previously been established by Congress. With few exceptions, the USACE cannot unilaterally change or add to these project-specific purposes and benefits. As such, USACE policy is to maintain these established project purposes(s) and benefits in the least-cost and environmentally acceptable manner. As discussed in Chapter 1, compliance with the MPRSA Criteria and/or CWA Section 404(b)(1) Guidelines is a major factor in arriving at a decision of "environmental acceptability."

### **7.1.2 Environmentally Preferred Alternative(s)**

Technically, no one management option can be considered a panacea for dredged material nor can it be ruled out a priori in project-specific evaluations other than for sound economic, environmental, or engineering reasons. Thus, unless specifically prohibited by Federal environmental statute, the intention of this document is to encourage full and balanced consideration of all practicable alternatives for the management of dredged material.

CEQ NEPA regulations (40 CFR 1505.2) require that the Record of Decision (ROD) for an EIS specifically identify, where applicable, the alternative or alternatives that were considered to be environmentally preferable. These regulations further require the ROD to identify and discuss relevant economic and technical issues and agency statutory missions, including any essential considerations of national policy that were balanced by the agency in making its alternative(s) selection. All other factors being equal, the environmentally preferable alternative should also be the preferred/recommended alternative.

Unfortunately, hard and fast guidelines for identifying the alternative that is preferable from an environmental standpoint would be difficult to develop and apply. Such guidelines would require objective criteria or standards for comparing environmental impacts and/or the value of resources in aquatic, upland, and wetland environments. In some cases, such environmental impacts/benefits can be quantified (e.g., impacts to commercially important shellfish beds). In many other cases, however, the relative environmental costs of adverse impacts and the relative environmental value of resources and environmental enhancements in various environments are largely subjective.

Subjective comparison between alternatives found to be environmentally acceptable is possible. Further, it is likely that one alternative would be clearly preferable from an environmental standpoint. Environmental preferability may be based on lesser adverse impacts or on greater environmental benefits, perhaps in the form of beneficial use of dredged material. For example, if a clean sand is to be dredged, beach nourishment is clearly an environmentally preferable alternative as compared with open-water or confined disposal, assuming that there are beach nourishment needs. Or, if noncontaminated, fine-grained material is to be dredged, the creation of wetlands or other

beneficial use is clearly an environmentally preferable alternative as compared with open-water or confined disposal, assuming that the beneficial use need is demonstrated.

Such comparisons will necessarily be qualitative even though many characteristics of the dredged material and the disposal site are measured quantitatively. The process depends heavily on professional judgment and subjective evaluation rather than on strict adherence to numerical calculations.

### **7.1.3 Alternative Selection**

In assessing suitable alternatives for dredged material disposal, both the MPRSA and CWA specifically recognize that a balance must at times be struck between critical navigation and environmental protection.

Section 404(b)(2) of the CWA requires appropriate balancing of established environmental guidelines with the economic impacts to navigation and anchorage of not allowing the proposed disposal to proceed. The baseline for this analysis is that disposal must not result in unacceptable adverse impact to the environment (Section 404(c)).

Section 103(b) of the MPRSA requires the USACE to determine the need for ocean disposal based on EPA's established environmental criteria as well as on an evaluation of the impact of permit denial on critical navigation and related economic considerations. The baseline for this analysis is that the disposal must not result in unreasonable environmental degradation or endangerment to human health (Section 103 (a)).

In practice, however, this level of decision making has generally been found to be a "worst case" situation (i.e., the economic waiver provision of Section 103(d) of the MPRSA has never been formally invoked). For Federal navigation projects, USACE standard policy is to select the least-cost, environmentally acceptable alternative. Compliance with the MPRSA and/or CWA Section 404(b)(1) Guidelines is prerequisite to a USACE determination of an "environmentally acceptable" management alternative for dredged material.

## **7.2 Environmental Coordination/Documentation/Recommended Alternative**

The weighing and balancing of all environmental, technical, and economic factors will result in selection of the preferred/proposed alternative by the lead agency. Coordination and environmental documentation associated with alternative selection is illustrated in Flowchart 3-1.

Documentation of this recommended plan occurs formally in either a draft NEPA document (along with alternatives) or a Section 404 or 103 Public Notice. These documents are available to the public and concerned agencies for review and comment. In some instances, circulation of Public Notices and the NEPA document may occur simultaneously, although this is unusual. The draft NEPA document, as well as public and agency comments used in making that selection, is circulated prior to the selection of a recommended alternative. Specific evaluations of the 404(b)(1) Guidelines and the 103 Criteria must be made and are typically prepared as appendices to the NEPA document

and circulated concurrently. For construction projects, this process may take place months or years before actual project construction begins. In such cases, another Public Notice is often issued immediately prior to when the actual dredging and disposal are to begin to ensure appropriate coordination.

EPA's environmental review program is conducted pursuant to Section 102(2)(c) of NEPA and Section 309 of the Clean Air Act. These laws establish EPA's responsibility to review and comment upon the "environmental impact of any matter relating to EPA's duties and responsibilities." Under this authority, EPA may choose to review and comment on EISs, EAs, and other proposed Federal actions. EPA comments on NEPA documents are advisory, but by USACE policy are given great weight. In cases where EPA and the USACE cannot resolve differences, the dispute may be referred by EPA to CEQ.

Section 309 of the Clean Air Act also establishes that when the Administrator determines that any legislation proposed by a federal agency, action or regulation falling under the purview of the Administrator's review responsibilities is "unsatisfactory from the standpoint of public health or welfare or environmental quality, he shall publish his determination and the matter shall be referred to the Council on Environmental Quality."

Under CWA and MPRSA, Public Notices are the formal mechanism by which EPA concurs or nonconcurs with a recommended action, whether it is a proposed permit or USACE activity. In addition, under the CWA, a 404(q) elevation and/or a 404(c) veto of a permit may be undertaken by EPA if differences between the agencies cannot be resolved at an earlier stage. Under the MPRSA, if EPA determines that the Criteria are not met, the proposed action cannot proceed unless a waiver is granted by EPA.

NEPA review staff and CWA and/or MPRSA program staff are separate offices in some EPA regions; therefore, care should be taken to ensure that NEPA documents, when prepared, are furnished to the appropriate program office for review as well as to the NEPA review office. Within EPA, NEPA reviewers and 404/103 staff also should be coordinating closely. Often, the NEPA evaluation of the overall project may be adequate, but program-specific information (e.g., sediment testing results and site monitoring results) may need updating. Such updates may be accomplished by an EA and Finding of No Significant Impact (FONSI) and/or by revision of the 404(b)(1) or 103 evaluation, rather than reopening the original EIS. It is recommended that these revisions always be coordinated with EPA.

### **7.3 Final Decision Document**

The completion of the NEPA process is documented in two ways depending upon the determination of significance of impacts associated with the proposed activity. The FONSI is prepared when an EA determines that preparation of an EIS is unnecessary. The FONSI is the environmental decision document. In addition, a Statement of Findings (SOF) is typically prepared upon completion of the evaluation process, including required coordination, receipt or waiver of required certifications, and completion of appropriate environmental documentation (e.g., the EA/FONSI and 404/103 evaluation). When an

EIS is prepared, a ROD is prepared which specifies the entire recommended action, alternatives considered, and any comments that were received on the final EIS. The ROD, not the final EIS, is the decision document. Typically the ROD is prepared in lieu of the SOF, provided that the substantial parts of 33 CFR 337.6 are included in the ROD. These documents are signed at various levels within the USACE structure and allow the USACE to proceed with the proposed action. Preparation of the FONSI, ROD, and SOF (if appropriate) typically occur after EPA has provided comments on draft and/or final documents. Copies of the FONSI and/or ROD should routinely be provided to the EPA NEPA review office as well as CWA/MPRSA program office.

The Public Notice also provides the formal opportunity for EPA to exercise its statutory environmental oversight under the CWA and MPRSA. Because of shared enforcement responsibilities under the CWA and MPRSA between the USACE and EPA, coordinating permit conditions or management restrictions is a good practice. Each USACE District and EPA region should have acceptable arrangements and practices that do not burden or delay the process.